CLAIMS

1. A method of determining overlay tolerance, comprising:

exposing wafers at different critical dimensions;

varying the overlay across each wafer; and

using functional yield data to determine the overlay tolerance for each of the image sizes.

2. A method according to Claim 1, wherein the exposing step includes the step of exposing the wafers at critical dimensions relative to an optimum image size.

3. A method according to Claim 2, wherein the step of exposing the wafers at critical dimensions includes the step of exposing the wafers at critical dimensions above, below and at the optimum image size.

4. A method according to Claim 1, wherein the varying step includes the step of varying the overlay across each wafer by intentionally changing the magnification.

5. A method according to Claim 4, wherein the step of varying the overlay across each wafer includes the step of varying the overlay across each wafer by intentionally increasing the magnification.

6. A method according to Claim 1, wherein the using step includes the steps of:

testing each of the wafers to identify a good region and a bad region; and

identifying the overlay tolerance, at which the bad region begins, as said determined overlay tolerance.

7. A method according to Claim 1, wherein the using step includes the step of:

searching the overlays across one of the wafers for a defined feature; and

if the defined feature is found in one of the searched overlays, identifying the overlay tolerance of said one of the overlays as the determined overlay tolerance.

8. A system for determining overlay tolerance, comprising:

means for exposing wafers at different critical dimensions;

means for varying the overlay across each wafer; and

means for using functional yield data to determine the overlay tolerance for each of the image sizes.

9. A system according to Claim 8, wherein the exposing means includes means for exposing the wafers at critical dimensions relative to an optimum image size.

10. A system according to Claim 9, wherein the means for exposing the wafers at critical dimensions includes means for exposing the wafers at critical dimensions above, below and at the optimum image size.

11. A system according to Claim 8, wherein the varying means includes means for varying the overlay across each wafer by intentionally changing the magnification.

12. A system according to Claim 11, wherein the means for varying the overlay across each wafer includes means for varying the overlay across each wafer by intentionally increasing the magnification.

13. A system according to Claim 8, wherein the using means includes:

means for testing each of the wafers to identify a good region and a bad region; and

means for identifying the overlay tolerance, at which the bad region begins, as said determined overlay tolerance.

14. A system according to Claim 8, wherein the using means includes:

means for searching the overlays across one of the wafers for a defined feature; and

if the defined feature is found in one of the searched overlays, means for identifying the overlay tolerance of said one of the overlays as the determined overlay tolerance.

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